Ratings and Specifications of Motor with Gear Reducer

● Model No. designation

e.g.) M U M A 0 1 1 P 3 1 N

Symbol	Type
MUMA	Low inertia (100-400W)

Motor rated output

Symbol	Rated output
01	100W
02	200W
04	400W

Voltage specifications

Symbol	Specifications
1	100V
2	200V

Rotary encoder specifications

Symbol	Format	Pulse counts	Pulse counts	Wire
P	Incremental	2500P/r	10000	5

Motor types with gear reducer

Symbol	Reduction ratio	Motor output			Type of reducer
		100	200	400	
1N	1/ 5	●	●	●	For High precision
2N	1/ 9	●	●	●	
4N	1/25	●	●	●	

Motor structure

Symbol	Shaft	Holding brake	
	Key-way	wuthout	with
3	●	●	
4	●		●

● Table of Specifications

Model	Motor	MUMA with gear reducer											
	Output	Reduction ratio	Output	Rated speed	Max. speed	Rated torque	Peak max. torque	Moment of inertia (motor + reducer/converted to motor shaft)		Mass		Permissible radial load	Permissible thrust load
								w/o brake	w/ brake	w/o brake	w/ brake		
	(W)		(W)	(r/min)	(r/min)	(N · m)	(N · m)	J(x 10^{-4}kg·m^2)		(kg)		(N)	(N)
MUMA01□P□1N	100	1/5	75	600	1000	1.18	3.72	0.072	0.076	1.05	1.25	490	245
MUMA01□P□2N		1/9	80	333	555	2.25	6.86	0.0663	0.0703	1.05	1.25	588	294
MUMA01□P□4N		1/25	80	120	200	6.27	19.0	0.0645	0.0685	2.20	2.40	1670	833
MUMA02□P□1N	200	1/5	170	600	1000	2.65	8.04	0.218	0.248	1.68	2.08	490	245
MUMA02□P□2N		1/9	132	333	555	3.72	11.3	0.368	0.398	2.66	3.06	1180	588
MUMA02□P□4N		1/25	140	120	200	11.1	33.3	0.388	0.418	2.66	3.06	1670	833
MUMA04□P□1N	400	1/5	340	600	1000	5.39	16.2	0.533	0.563	3.2	3.6	980	490
MUMA04□P□2N		1/9	332	333	555	9.51	28.5	0.438	0.468	3.2	3.6	1180	588
MUMA04□P□4N		1/25	332	120	200	26.4	79.2	0.470	0.500	4.7	5.1	2060	1030

For dimensions, refer to page, E19.

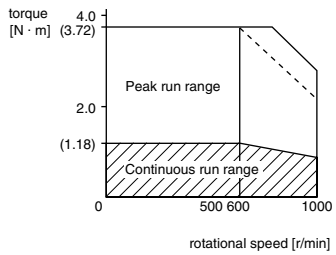
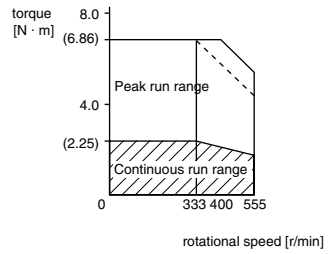
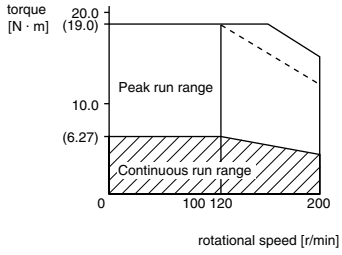
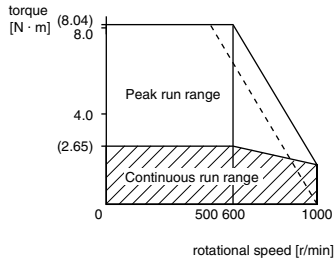
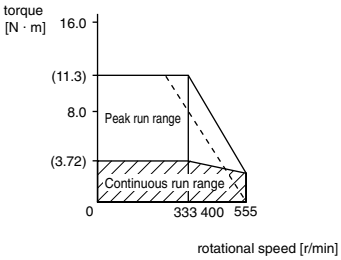
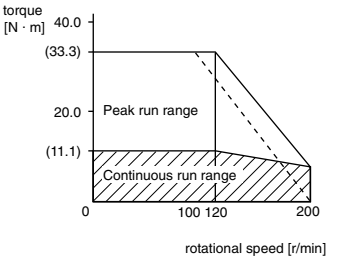
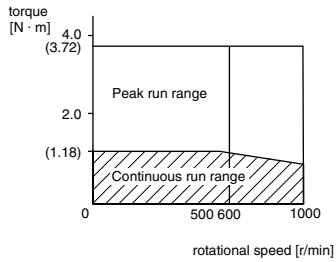
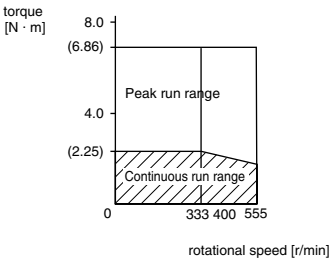
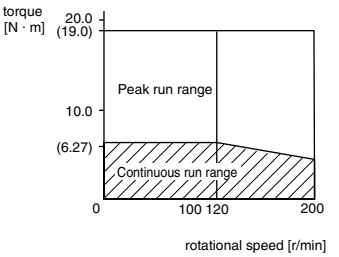
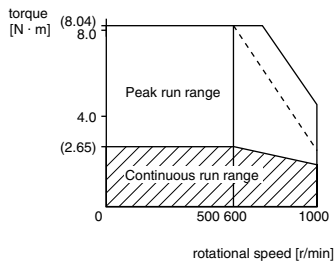
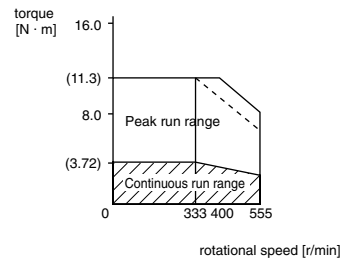
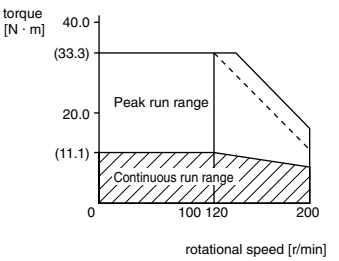
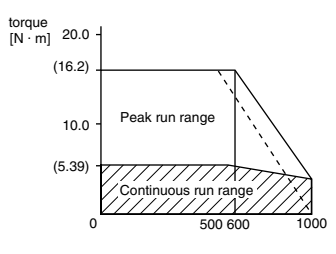
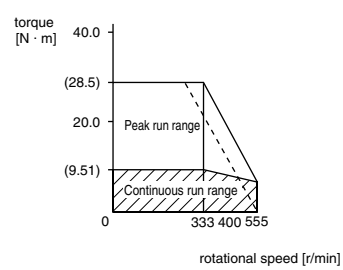
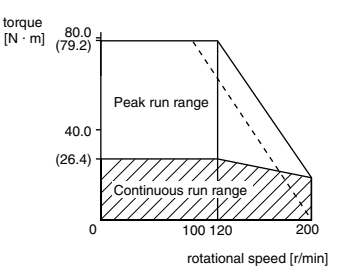
● The Combination of the Driver and the Motor

Combination with driver		100V		200V		
Encoder	Motor output	Part No. of motor with reducer	Single phase, 100V Part No. of driver	Part No. of motor with reducer	3-phase, 200V Part No. of driver	Single phase, 200V Part No. of driver
2500P/r Incremental	100W	MUMA011P□□N	MKDET1110P	MUMA012P□□N	MKDET1505P	MKDET1505P
	200W	MUMA021P□□N	MLDET2110P	MUMA022P□□N	MKDET1310P	MLDET2210P
	400W	–	–	MUMA042P□□N	MLDET2510P	MLDET2510P
					MLDET2310P	

For dimensions, refer to page E23

Torque Characteristics of Motor with Gear Reducer

● For high precision (MUMA Series 100W to 400W)

Supply voltage to driver	Motor output \ Reduction ratio	1/5	1/9	1/25
100V	100W	MUMA011P□1N 	MUMA011P□2N 	MUMA011P□4N 
	200W	MUMA021P□1N 	MUMA021P□2N 	MUMA021P□4N 
200V	100W	MUMA012P□1N 	MUMA012P□2N 	MUMA012P□4N 
	200W	MUMA022P□1N 	MUMA022P□2N 	MUMA022P□4N 
	400W	MUMA042P□1N 	MUMA042P□2N 	MUMA042P□4N 

Dotted line represents the torque at 10% less supply voltage.